

U.S.S.N. 10/673,480
Amendment Dated: November 10, 2005
Reply to Office Action dated August 10, 2005

Page 2 of 10

Claims Amendment

1. (currently amended) A method of balancing voice and data traffic in a wireless communications network, said method comprising the steps of:

establishing a maximum load value for at least one of a voice or data traffic on a carrier; and

maintaining loading on said carrier at a level no greater than said established maximum load value by converting said carrier from voice and data traffic to voice-only traffic upon exceeding said established maximum load value;

wherein said established maximum load value is a threshold defined to ensure acceptable quality of communications.

2. (original) The method as claimed in **Claim 1** wherein said established maximum load value is a voice load value.

3. (original) The method as claimed in **Claim 1** wherein said established maximum load value is a data load value.

4. (currently amended) A method of balancing voice and data call loads, said method comprising: dynamically managing whereby relative voice and data call loading among one or more carriers is dynamically managed to a prescribed quality of service level by converting at least one of said one or more carriers from voice and data traffic to voice-only traffic upon exceeding a carrier load value defined to ensure acceptable quality of communications.

5. (original) The method as claimed in **Claim 4** wherein voice and data loads are maintained on different call carriers.

U.S.S.N. 10/873,480
Amendment Dated: November 10, 2005
Reply to Office Action dated August 10, 2005

Page 3 of 10

6. (original) The method as claimed in **Claim 4** wherein base transceiver station transmit power is adjusted to maintain said prescribed quality of service level.
7. (original) The method as claimed in **Claim 4** wherein intra-cell interference is maintained below a prescribed level.
8. (original) The method as claimed in **Claim 4** wherein inter-cell interference is maintained below a prescribed level.
9. (original) The method as claimed in **Claim 4** further comprising,
implementing a migration of at least a portion of said voice or data loading from a first carrier to a second carrier.
- 10 (currently amended) A system operable to balance voice and data traffic in a wireless communications network, said system comprising:
a call controller operable to maintain call loading on a carrier at a level not to exceed a predetermined maximum level for at least one of voice or data traffic in the carrier by converting said carrier from voice and data traffic to voice-only traffic upon exceeding said predetermined maximum level, wherein said predetermined maximum level is defined to ensure acceptable quality of communications.
11. (original) The system as claimed in **Claim 10** further comprising,
control means operable to effect call handoff from a first base transceiver station sector or cell site to a second base transceiver sector or cell site upon attainment of call loading for said at least one of voice or data traffic at a percentage of said predetermined maximum level.
12. (original) A method of balancing voice and data traffic in a wireless communications network, said method comprising the steps of:
(a) establishing a nominal value for acceptable quality of communications;

U.S.S.N. 10/673,480
Amendment Dated: November 10, 2005
Reply to Office Action dated August 10, 2005

Page 4 of 10

- (b) distributing voice subscribers among a plurality of carriers until a load value for each carrier exceeds said nominal value;
- (c) converting one of said carriers to a voice-only carrier;
- (d) upon said load value of all carriers other than said voice-only carrier exceeding said nominal value, admitting said new voice subscriber to said voice-only carrier;
- (e) upon said load value of said voice-only carrier falling below said nominal value, converting said voice-only carrier back to a voice and data carrier; and
- (f) repeating steps b through e.

13. (original) The method as claimed in **Claim 12** wherein the step of converting one of said carriers to a voice-only carrier includes, designating one carrier as said voice-only carrier, and performing a hard handoff of data subscribers on said voice-only carrier to any carrier other than said voice-only carrier until said load value of said voice-only carrier falls below said nominal value.

14. (original) The method as claimed in **Claim 12** wherein the step of converting one of said carriers to a voice-only carrier includes, designating one carrier as said voice-only carrier, performing a migration of data subscribers on said voice-only carrier to any carrier other than said voice-only carrier so long as said load value of said voice-only carrier is between a first threshold equal to said nominal value and a second threshold equal to a value greater than said nominal value, and performing a hard handoff of data subscribers on said voice-only carrier to any carrier other than said voice-only carrier upon said load value of said voice-only carrier exceeding said second threshold.

U.S.S.N. 10/673,480
Amendment Dated: November 10, 2005
Reply to Office Action dated August 10, 2005

Page 5 of 10

15. (new) The method as claimed in **Claim 1** wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while removing data traffic by hard handoff onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.
16. (new) The method as claimed in **Claim 1** wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while implementing a migration of data traffic onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.
17. (new) The method as claimed in **Claim 4** wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while removing data traffic by hard handoff onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.
18. (new) The method as claimed in **Claim 4** wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while implementing a migration of data traffic onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.
19. (new) The method as claimed in **Claim 10** wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while removing data traffic by hard handoff onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

U.S.S.N. 10/673,480
Amendment Dated: November 10, 2005
Reply to Office Action dated August 10, 2005

Page 6 of 10

20. (new) The method as claimed in **Claim 10** wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while implementing a migration of data traffic onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.